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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/051,070	04/02/1998	STEPHEN CLIFFORD APPLEBY	36-1201	7570

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EXAMINER	
PHAN, THAI Q	

ART UNIT	PAPER NUMBER
2128	30

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Please find below and/or attached an Office communication concerning this application or proceeding.

(Rev. 10/03)

Office Action Summary	Application No. 09/051,070	Applicant(s) APPLEBY	
	Examiner Thai Phan	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 20-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2,3,5 and 20* is/are allowed.

6)☒ Claim(s) *1,4,6-16,21-24 and 26-29* is/are rejected.

7)☒ Claim(s) *25 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to applicant's response filed on Jan. 27, 2004. Claims 1-16 and 20-30 are now pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 6-16, 21-24, 26-27, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin, Paul, US patent no. 5,642,519, in view of Linebarger et al., US patent no. 5,652,897.

As per claim 1, Martin discloses a method and system for interpreting user speech with feature limitations very similar to the claimed invention. According to Martin, the speech interpreter includes a unified grammar compiler, a speech recognizer, a natural language processor, and

means for outputting messages to a user (Figs. 3-4, col. 4, lines 64-65, col. 5, lines 19-33, for example),

means for receiving input from the user (Figs. 3 and 4, cols. 6)

means (330a) for analyzing lexical structure (Fig. 4, col. 7, line 2 to col. 8, line 51, line 8, for example), means for storing rules (330c) specifying grammatically allowable relationships of words input (Fig. 4, col. 10, lines 35-54, for example),

a computer including a central processor, Figs. 3-4, cols. 3-5, 10, for processing user dialogue, for example, of the present patent which includes lexical rules or grammar to recognize and handle the occurrence of words or spoken language through the input devices, contained in the lexical rules the relationships specifying by rules in accordance with the data specified in the transaction, key word objects or non-keyword objects, word meaning, etc. in the database of the system, a transaction storage means for containing data relating to allowable transactions between users interaction (Figs. 3-6, cols. 10-12, for example) and independence upon recognition, to generate output dialogue in an adaptive manner with the most recent or current to meet real time requirement or time duration relying on constraints applied to the training model (Figs. 3-4, cols. 10-11, 15, 18) for recognizing dialogue language (Figs. 3-7, col. 6, lines 28-67, col. 7, lines 47-60, for example),

and an output means for making output dialogue available for dialogue purpose (Figs. 3-4, cols. 6-10) for interactive dialogue with other person. Martin does not expressly specify the interactive spoken dialogue can be used for training as claimed. Such feature is however well-known in the art. In fact, Linebarger teaches system being used for training user in order to speak or pronounce correctly (Abstract, col. 2, lines 10-67, col. 10, lines 4-14, col. 13, lines 28-37, for example), and recognizing spoken language accuracy (col. 2, col. 10, lines 4-14, col. 13, lines 28-37, for example).

This would motivate practitioner in the art at the time of the invention was made to modify Martin disclosure by incorporating the training feature as taught in Linebarger

into speech interpreter to process and recognize user speech and to train user to speak properly.

As per claim 4, Martin discloses speech recognization (cols. 23-24, for example) based on such as semantic grammar rules, syntactic structures, lexicons, etc. The speech recognizer also uses to detect speech errors by natural language processor as claimed.

As per claim 6, Martin discloses natural language processor for training model for a target language.

As per claims 7-11, Martin and Linebarger disclose the system for use to recognize text, speech, voice, other peripheral device inputs for user dialogue, etc.

As per claim 12, Martin discloses an interactively interface for user which include speech synthesizer as claimed for speech recognizer and dialogue.

As per claims 13-15, Martin discloses a user dialogue interactive interface (Figs. 3-4, and cols. 7-9), including a computer, input means and user interface for interactive with speaking user. Martin and Linebarger disclose graphic user interface for natural language processing, for example.

As per claim 16, Martin discloses communication channel in a recognition network connected dialogue server remotely such as in central telecommunication system (col. 5, lines 11-18).

As per claims 21-23, Martin discloses lexical rules of syntax, grammars, etc, which would include inflection rules as claimed.

As per claim 24, Martin discloses a method and system for interpreting user speech with feature limitations very similar to the claimed invention. According to Martin, the speech interpreter includes a unified grammar compiler, a speech recognizer, a natural language processor, and

means for outputting messages to a user (Figs. 3-4, col. 4, lines 64-65, col. 5, lines 19-33, for example),

means for receiving input from the user (Figs. 3 and 4, cols. 6)

means (330a) for analyzing lexical structure (Fig. 4, col. 7, line 2 to col. 8, line 51, line 8, for example), means for storing rules (330c) specifying grammatically allowable relationships of words input (Fig. 4, col. 10, lines 35-54, for example),

a computer including a central processor, Figs. 3-4, cols. 3-5, 10, for processing user dialogue, for example, of the present patent which includes lexical rules or grammar to recognize and handle the occurrence of words or spoken language through the input devices, contained in the lexical rules the relationships specifying by rules in accordance with the data specified in the transaction, key word objects or non-keyword objects, word meaning, etc. in the database of the system, a transaction storage means for containing data relating to allowable transactions between users interaction (Figs. 3-6, cols. 10-12, for example) and independence upon recognition, to generate output dialogue in an adaptive manner with the most recent or current to meet real time requirement or time duration relying on constraints applied to the training model (Figs. 3-4, cols. 10-11, 15, 18) for recognizing dialogue language (Figs. 3,-7, col. 6, lines 28-67, col. 7, lines 47-60, for example),

and an output means for making output dialogue available for dialogue purpose (Figs. 3-4, cols. 6-10) for interactive dialogue with other person. Martin does not expressly specify the interactive spoken dialogue can be used for training as claimed. Such feature is however well-known in the art. In fact, Linebarger teaches system being used for training user in order to speak or pronounce correctly (Abstract, col. 2, lines 10-67, col. 10, lines 4-14, col. 13, lines 28-37, for example), and recognizing spoken language accuracy (col. 2, col. 10, lines 4-14, col. 13, lines 28-37, for example).

This would motivate practitioner in the art at the time of the invention was made to modify Martin disclosure by incorporating the training feature as taught in Linebarger into speech interpreter to process and recognize user speech and to train user to speak properly.

As per claims 26-27, Martin discloses a NL processor is arranged to output responsive to input (Figs. 3-4) and to detect recognized errors according to language rules, and apparatus for training a target language for natural language processing as claimed.

As per claims 28-29, Martin discloses a method and system for interpreting user speech with feature limitations very similar to the claimed invention. According to Martin, the speech interpreter includes a unified grammar compiler, a speech recognizer, a natural language processor, and

means for outputting messages to a user (Figs. 3-4, col. 4, lines 64-65, col. 5, lines 19-33, for example),

means for receiving input from the user (Figs. 3 and 4, cols. 6)

means (330a) for analyzing lexical structure (Fig. 4, col. 7, line 2 to col. 8, line 51, line 8, for example), means for storing rules (330c) specifying grammatically allowable relationships of words input (Fig. 4, col. 10, lines 35-54, for example),

a computer including a central processor, Figs. 3-4, cols. 3-5, 10, for processing user dialogue, for example, of the present patent which includes lexical rules or grammar to recognize and handle the occurrence of words or spoken language through the input devices, contained in the lexical rules the relationships specifying by rules in accordance with the data specified in the transaction, key word objects or non-keyword objects, word meaning, etc. in the database of the system, a transaction storage means for containing data relating to allowable transactions between users interaction (Figs. 3-6, cols. 10-12, for example) and independence upon recognition, to generate output dialogue in an adaptive manner with the most recent or current to meet real time requirement or time duration relying on constraints applied to the training model (Figs. 3-4, cols. 10-11, 15, 18) for recognizing dialogue language (Figs. 3-7, col. 6, lines 28-67, col. 7, lines 47-60, for example),

and an output means for making output dialogue available for dialogue purpose (Figs. 3-4, cols. 6-10) for interactive dialogue with other person. Martin does not expressly specify the interactive spoken dialogue can be used for training as claimed. Such feature is however well-known in the art. In fact, Linebarger teaches system being used for training user in order to speak or pronounce correctly (Abstract, col. 2, lines 10-67, col. 10, lines 4-14, col. 13, lines 28-37, for example), and recognizing spoken language accuracy (col. 2, col. 10, lines 4-14, col. 13, lines 28-37, for example).

This would motivate practitioner in the art at the time of the invention was made to modify Martin disclosure by incorporating the training feature as taught in Linebarger into speech interpreter to process and recognize user speech and to train user to speak properly.

Allowable Subject Matter

3. Claims 2, 3, 5, and 20 are allowed. The following is an examiner's statement of reasons for allowance:

Claims 2, 3, 5 and 20 are directed to a training apparatus for training a user to engage in transactions with another person whom the apparatus is arranged to simulate. In addition to the limitations to recognize and process dialog transaction simulation for training, the claims further require limitations of "the rule store contains first rules comprising criteria specifying correct relationships between words of the lexical store, and, associated with the first rules, one or more second rules each corresponding to one of the first rule but with one relationship criterion relaxed, the processor processing the input dialogue using both the first rules and second rules."

Because the closest applied art does not suggest or disclose such limitations, claims 2, 3, 5, and 20 are deemed allowable over the prior art of record.

4. Claims 25 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Similarly, dependent claims 25 and 30 also requires the rule store contains first rules comprising criteria specifying correct relationships between words of the lexical store, and, associated with the first rules, one or more second rules each corresponding to one of the first rule but with one relationship criterion relaxed, the processor processing the input dialogue using both the first rules and second rules.

Response to Arguments

5. Applicant's arguments with respect to claims 1-16 and 20-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thai Phan whose telephone number is 703-305-3812.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Phan
Apr. 04, 2004

Thaiphan
Thai Phan
Patent Examiner
A.U: 2128